REFERENCES 83

[90] N. Harrand, C. Soto-Valero, M. Monperrus, and B. Baudry, "Java decompiler diversity and its application to meta-decompilation," *Journal of Systems and Software*, vol. 168, p. 110645, 2020.

- [91] M. Zalewski, "American fuzzy lop," 2017.
- [92] K. Zhang, D. Wang, J. Xia, W. Y. Wang, and L. Li, "ALGO: Synthesizing Algorithmic Programs with Generated Oracle Verifiers," arXiv e-prints, p. arXiv:2305.14591, May 2023.
- [93] L. de Moura and N. Bjørner, "Z3: An efficient smt solver," in Tools and Algorithms for the Construction and Analysis of Systems (C. R. Ramakrishnan and J. Rehof, eds.), (Berlin, Heidelberg), pp. 337–340, Springer Berlin Heidelberg, 2008.
- [94] P. M. Phothilimthana, A. Thakur, R. Bodik, and D. Dhurjati, "Scaling up superoptimization," SIGARCH Comput. Archit. News, vol. 44, p. 297–310, mar 2016.
- [95] R. El-Khalil and A. D. Keromytis, "Hydan: Hiding information in program binaries," in *Information and Communications Security* (J. Lopez, S. Qing, and E. Okamoto, eds.), (Berlin, Heidelberg), pp. 187–199, Springer Berlin Heidelberg, 2004.
- [96] V. Singhal, A. A. Pillai, C. Saumya, M. Kulkarni, and A. Machiry, "Cornucopia: A framework for feedback guided generation of binaries," in Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering, ASE '22, (New York, NY, USA), Association for Computing Machinery, 2023.
- [97] B. Cox, D. Evans, A. Filipi, J. Rowanhill, W. Hu, J. Davidson, J. Knight, A. Nguyen-Tuong, and J. Hiser, "N-variant systems: a secretless framework for security through diversity," in *Proc. of USENIX Security Symposium*, USENIX-SS'06, 2006.
- [98] D. Bruschi, L. Cavallaro, and A. Lanzi, "Diversified process replicae for defeating memory error exploits," in *Proc. of the Int. Performance, Computing, and Communications Conference*, 2007.
- [99] B. Salamat, A. Gal, T. Jackson, K. Manivannan, G. Wagner, and M. Franz, "Stopping buffer overflow attacks at run-time: Simultaneous multi-variant program execution on a multicore processor," tech. rep., Technical Report 07-13, School of Information and Computer Sciences, UCIrvine, 2007.
- [100] L. Davi, C. Liebchen, A.-R. Sadeghi, K. Z. Snow, and F. Monrose, "Isomeron: Code randomization resilient to (just-in-time) return-oriented programming," in NDSS, 2015.

84 REFERENCES

[101] G. Agosta, A. Barenghi, G. Pelosi, and M. Scandale, "The MEET approach: Securing cryptographic embedded software against side channel attacks," IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, vol. 34, no. 8, pp. 1320–1333, 2015.

- [102] T. Jackson, B. Salamat, A. Homescu, K. Manivannan, G. Wagner, A. Gal, S. Brunthaler, C. Wimmer, and M. Franz, "Compiler-generated software diversity," in *Moving Target Defense*, pp. 77–98, Springer, 2011.
- [103] A. Amarilli, S. Müller, D. Naccache, D. Page, P. Rauzy, and M. Tunstall, "Can code polymorphism limit information leakage?," in *IFIP International Workshop on Information Security Theory and Practices*, pp. 1–21, Springer, 2011.
- [104] A. Voulimeneas, D. Song, P. Larsen, M. Franz, and S. Volckaert, "dmvx: Secure and efficient multi-variant execution in a distributed setting," in Proceedings of the 14th European Workshop on Systems Security, pp. 41–47, 2021.
- [105] J. Cabrera Arteaga, O. Floros, O. Vera Perez, B. Baudry, and M. Monperrus, "Crow: code diversification for webassembly," in MADWeb, NDSS 2021, 2021.
- [106] D. Yao, X. Shu, L. Cheng, S. J. Stolfo, E. Bertino, and R. Sandhu, Anomaly detection as a service: challenges, advances, and opportunities. Springer, 2018.
- [107] S. A. Hofmeyr, S. Forrest, and A. Somayaji, "Intrusion detection using sequences of system calls," *J. Comput. Secur.*, vol. 6, p. 151–180, aug 1998.
- [108] J. Cabrera Arteaga, M. Monperrus, and B. Baudry, "Scalable comparison of javascript v8 bytecode traces," in *Proceedings of the 11th ACM SIGPLAN International Workshop on Virtual Machines and Intermediate Languages*, VMIL 2019, (New York, NY, USA), p. 22–31, Association for Computing Machinery, 2019.
- [109] Y. Fang, C. Huang, L. Liu, and M. Xue, "Research on malicious javascript detection technology based on lstm," *IEEE Access*, vol. 6, pp. 59118–59125, 2018.
- [110] C. Fred, "Computer viruses," in *Proceedings of the 7th DoD/NBS Computer Security Conference 1984*, pp. 240–263, 1986.
- [111] R. L. Castro, C. Schmitt, and G. D. Rodosek, "Armed: How automatic malware modifications can evade static detection?," in 2019 5th International Conference on Information Management (ICIM), pp. 20–27, 2019.